



MEETING OF THE

PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

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Orange County Transportation Authority: Art Brown, Buena Park

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Keith Millhouse, Moorpark

Monday, August 27, 2007

10:00 a.m. – 12:00 p.m.

SCAG Offices

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Video Conference Location

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Agendas and Minutes for the P&P TAC are also available at:

<http://www.scag.ca.gov/rtptac/index.htm>

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PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

AGENDA

	PAGE#	TIME
<i>"Any item listed on the agenda (action or information) may be acted upon at the discretion of the Committee".</i>		
1.0 <u>CALL TO ORDER & INTRODUCTIONS</u>	Ty Schuiling, Chair	
2.0 <u>PUBLIC COMMENT PERIOD</u> Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of the Committee, must fill out and present a speaker's card to the assistant prior to speaking. A speaker's card must be turned in before the meeting is called to order. Comments will be limited to three minutes. The chair may limit the total time for all comments to twenty (20) minutes.		
3.0 <u>CONSENT CALENDAR</u>		
3.1 <u>Approval Items</u>		
3.1.1 <u>Approve Minutes of August 16, 2007</u> Attached		
4.0 <u>DISCUSSION ITEMS</u>		
4.1 <u>Aviation/Ground Access Report</u> <i>Results of the airport ground access analysis for the 2008 RTP including major recommended projects for each commercial airport.</i>	Mike Armstrong, SCAG Staff	15 min.
4.2 <u>2003 Base Year & 2035 Baseline Modeling Result Comparison</u> <i>Continued discussion of performance measures, specifically transit accessibility.</i>	Tarek Hatata, System Metrics	20 min.
4.3 <u>Standing Items</u>		
4.3.1 <u>Growth Forecast</u> <i>Continued discussion of growth scenario ranges, and a 4-D modeling update.</i>	Frank Wen, SCAG Staff	40 min.

PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

AGENDA

4.3.2 Highways and Arterials
No report

4.3.3 Non-motorized / TDM
No report

5.0 STAFF REPORT

No report

6.0 ADJOURNMENT

The next meeting date of the Plans & Programs Technical Advisory Committee will be decided at this meeting.

Plans & Programs Technical Advisory Committee (TAC)
of the
Southern California Association of Governments

August 16, 2007

Minutes

THE FOLLOWING MINUTES ARE A SUMMARY THE PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE (TAC) MEETING. THE AUDIO CASSETTE TAPE OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.

The P&P TAC held its meeting at the SCAG Headquarters in Los Angeles. The meeting was called to order by Ty Schuiling, Chair, SANBAG.

Members Present:

Ty Schuiling, Chair	SANBAG
David Mootchnik	So. Cal. Commuters Forum
Gail Shiimoto-Lohr	Orange County COG
Ji Hong McDermott	Riverside County Transportation & Land Mgmt. Agency
Jack Humphrey	Gateway Cities COG
Mary Lou Echternach	Metrolink
Tony Van Haagen	Caltrans-District 7
Lori Abrishami	LACMTA
Michelle Noch	FHWA
Deborah Diep	CDR / CSU Fullerton
Michael Litschi	OCTA
Greg Nord	OCTA
Deborah Chankin	Gateway Cities COG
Joanna Capelle	SCRRA
Kim Fuentes	South Bay Cities COG
Dana Gabbard	So. Ca. Transit Advocates
Tracy Sato	City of Anaheim
Jim Stewart	SCCED
David Sosa	Caltrans-District 7
Frances Lee	Caltrans-District 7
Mike Labudzki	City of Burbank

Video Conference:

Shirley Medina	RCTC
Grace Alvarez	RCTC

Conference Call:

Dr. Paul Fagan	Caltrans-District 8
Jason Finch	City of Palmdale
Michelle Merino	IVAG
Rich Kuzmyak	SCAG Consultant

SCAG Staff:

Glen Bolen, SCAG Consultant	Mat Horton	Alan Thompson
Tarek Hatata, SCAG Consultant	Linda Jones	Frank Wen
Pablo Gutierrez	Ryan Kuo	Akiko Yamagami
Lynn Harris	Annie Nam	
Wesley Hong	Joanne Ruddell	

1.0 CALL TO ORDER AND INTRODUCTIONS

Ty Schuiling, Chair, called the meeting to order at 10:10 am. Introductions were made.

2.0 PUBLIC COMMENT PERIOD

There was no public comment.

3.0 CONSENT CALENDAR

3.1 Approval Items

3.1.1 Approve Minutes of May 17, 2007

Members reviewed minutes and recommended the following changes:

- Page 6, paragraph 2, of the minutes as follows: “In some cases the design and mix are important but the study found that”
- Michael ~~Litchi~~ Litschi, OCTA - correction in spelling of name.
- Page 6, final paragraph, of the minutes as follows: “Ms. Shiimoto-Lohr stated that the issue with Mr. Kuzmyak’s presentation is simply communicating all of the complex materials especially to policy makers. ~~which is very difficult to present.~~”
- Following comment to be added to page 7, final paragraph: Ms. Shiimoto-Lohr inquired of the implications of the database of a preferred growth scenario on statutory congestion management program modeling consistency requirements for regional and local models and on the modeling and transportation infrastructure provisions in SB 375.

Motion was moved and unanimously approved with above-mentioned corrections.

4.0 INFORMATION ITEMS

4.1 Standing Items

4.1.1 Growth Forecast

Rich Kuzmyak, SCAG Consultant, provided an update on the 4D modeling results via webcast and conference call. His update was concerning where we are with the Blueprint land use modeling effort. We are trying to quantify the effects of the Blueprint land use concepts, which are pretty extensive on travel and air quality. The reason that we are doing this is because the regional four-step model (not just SCAG’s, but all four-step models) are not very sensitive to the important land use characteristics that we are testing. Those include characteristics such as

higher densities, mixing of uses, which we call diversity, and design of more pedestrian-friendly transit. These are typically called the three D's and are complemented by the fourth D, which is not exactly a local land use characteristic, but regional transit accessibility instead. We find that this is important: people who have very good transit access tend to own fewer vehicles and use their vehicles less. What we have been attempting to do since the beginning is adapt findings from extensive research that Mr. Kuzmyak was involved in with the Baltimore MPO back in 2005 that quantified the four D measures and came up with a fairly interesting new one that seemed to have some promise. When Mr. Kuzmyak last spoke with the TAC, we opted for a post-processor approach to bring the fourth D step in. We thought about going in to the SCAG model and making structural changes to it, but quickly realized that we did not have the time and resources to make these changes. Therefore, we have opted to use the post-processor approach and are using two models that came from the Baltimore research. These are an auto ownership model and a household VMT model; we have recalibrated both using SCAG's data. We will be applying these models to calculate VMT differences that we can attribute to the Blueprint land use designs and are going to do this for individual TAZ's. We will develop TAZ adjustment factors based on VMT that will show the difference between what the SCAG model estimates and what would happen if you account for this intra-zonal 4D type of effect.

Mr. Kuzmyak continued that to get this all in front of us, the four scenarios that he sees us working with are as follows: 1) We have the Baseline. The jobs and households would be according to the 2035 SCD forecast and would be located and distributed in land uses that come from the local visioning, and are captured to the general plan. The transportation network is the no-build, and nothing major has been added. There's no innovative land use shown. 2) We will look at a plan that is referred to as a modified Baseline and this has the same characteristics and demographic distributions as the base line but it will have the new transportation network per plan included in it.

Ty Schuiling, Chair, SANBAG, asked for a clearer definition of the "no build network." Tarek Hatata, SCAG Consultant (System Metrics), answered that in general, when SCAG says "Baseline," this includes projects that have been fully committed today and will be built regardless of what we do at SCAG.

Mr. Schuiling then asked what the threshold beyond which something is considered fully committed is. Is it a completed EIS, or what? Mr. Hatata answered that the threshold is if it is in the Transportation Improvement Plan (TIP), the funding has been allocated, and a date for implementation is set. Mr. Schuiling asked if the funding is for construction or just project development. Mr. Hatata answered that it is through construction. We also have Tier 2, which is an interim step and is for additional projects that have passed the environmental process but have not been fully

programmed. This is from a funding and construction perspective. This is not considered “no build,” and we actually try to avoid saying “no build” because this is misunderstood to refer to today’s network. The plan is everything in Baseline, everything in Tier 2, plus whatever the county commissions provide us with their long range plans that have identified funding. Then it gets tricky because sometimes a project is only partially funded and we need to make a judgment call based on revenues and cost.

Deborah Chankin, Gateway Cities COG, asked for an explanation of “the final one.” Mr. Hatata replied that that is “Plan.”

Gail Shiimoto-Lohr, Orange County COG, asked if “Plan” is the same as what Mr. Kuzmyak called “Modified Baseline.” Mr. Hatata answered that it seems as if he is referring to “Plan” as “Modified Baseline,” and that he is not sure why, but it is technically correct since it is an expanded Baseline.

Ms. Shiimoto-Lohr asked if what is up there as “Plan” is basically everything that is in “Baseline” plus the Tier 2 projects plus the CTC information from their long range plans. Mr. Hatata replied that that is correct.

Mr. Kuzmyak continued with his presentation by saying that part of the many things on the critical path is that we are going to need to have SCAG regional model runs on each of these scenarios that will provide our Baseline to pivot with our Baseline post-processor strategy. We will need to have model runs that reflect each of these combinations. In the Blueprint strategies, you have Blueprint tests which came out of the January workshop and Envision, which incorporates the centers, TOD’s, and corridors. Essentially, this has the same jobs/housing internal for the SCD but they have been drastically moved around in the Blueprint more so in the Envision. The land use has been changed in considerable detail as you get into the Blueprint.

Ms. Chankin asked for a clarification on the difference between the Baseline and the Blueprint test. She understood that the Baseline was that workshop output. Are we talking about two different workshops? Mr. Hatata replied that Baseline in general refers to the network and the land use refers to the general plan which would be the approved growth scenario that was approved by the SCAG committees. We are confusing Baseline for network versus Baseline for growth. The Baseline for the network is what he described. The Baseline for growth is what was approved at SCAG after the technical work.

Ms. Chankin asked what this Blueprint test is. Frank Wen, SCAG staff, answered that the Blueprint test, or Blueprint Envision, is a component of the land use strategies in terms of the 2008 overall Compass land use strategies. We look at different components such as the TOD stations, the centers, and combine those two into what we call the Envision. Eventually, those scenarios and exercises will serve to lead us towards preferred growth alternatives for 2008 RTP, reflecting the regional perspective in terms of land use strategies.

Ms. Chankin asked that if we look at the land use column, if Blueprint Envision is something that is still being worked out. Mr. Wen answered that yes, it is a work in progress. Ms. Chankin asked between the general plan and Blueprint tests, which of those two refer to what Mr. Wen called the Baseline in his last memo to the TAC. Mr. Wen answered that that is the first one, the Baseline, the general plan which reflects the local general plan and the local visions. Ms. Chankin asked if at the last forecast workshop that Mr. Wen had with the subregions, that what was called the general plan and what is called the Blueprint test is different from that. Mr. Wen answered yes, and that all of the local visioning plans were placed in the Baseline and then we are trying to do an exercise from the regional perspective. If there are any potential growth opportunities in the area along the stations and the centers that were not emphasized enough from the Baseline from local perspectives, we want to emphasize to see from the regional and policy perspective if we can identify those areas through a criteria and place additional growth which would be reasonable and logic, and then put in place an implementation plan.

Mr. Schuiling stated that it strikes him that although we should expect to see less benefit from the 4D style analysis in the Baseline case than in the Blueprint cases in which we are trying to accentuate the kinds of land uses that yield benefit; nevertheless, as part of Baseline to the extent that we are applying 4D to Blueprint, we should be applying it to Baseline as well so the increment of benefit is more accurately shown. Mr. Wen stated that that is correct and it will be. Mr. Kuzmyak added that in order to do this correctly we would need to see what was there before. We are working to code in land uses for what was there.

Deborah Diep, CDR / CSU Fullerton, stated that the first two scenarios are basically information from the general plan. In the third scenario, the Blueprint test, there is some information directly from jurisdictions that were integrated into that and then the fourth scenario is SCAG's staff and consultants intensifying the fourth scenario. But, the jurisdictions have not had any review or input on the results of the Blueprint Envision, but it is Envisioned that that will take place within the next month or so. Mr. Wen answered that we will communicate with the subregions, and that those land use strategies will be used for public comment and review.

Tony Van Haagen, Caltrans–District 7, asked if FHWA and EPA approves of this post-processor process. This is no longer a model run anymore, but you do something thereafter to meet conformity; is this accepted practice? Mr. Hatata stated that we will have to discuss this with them to figure out if we can take credit, especially from an air quality perspective.

Mr. Kuzmyak then continued with his presentation with what have we done since late July. We have reached an agreement on a set of regression models and you will remember that we had something that we liked but we could see that we could go and investigate some other things a bit more. The R-squared was low on our VMT model. We have worked on advancing our methodology for application to the scenarios. Regarding land use for the non-Blueprint scenarios, we discovered that we needed to have coding for grid cells in terms of their land use for before cases so that we would know what we were comparing against. This created a huge job for Fregonese and they are pretty close to finishing. Major discoveries that were not expected are being called final regression models that will be used as the “teller” of the technique. There are two models: an auto ownership model and a household VMT model. The reason we are using auto ownership is that it is a very important contributor to the calculation of VMT. The research that we have seen suggests that auto ownership is sensitive to land use. We calculate autos as a function of household size and income. As both of these increase, so does the number of autos; however, regional transit accessibility improves and we are measuring that as number of jobs in the region that are reachable by transit discounted by the respective travel time that it takes to get there. People living in centers will have really good transit access and people living in out suburbs will have virtually no transit access.

Auto ownership goes down with land use mix, one of the two local land use measures. It looks at the number of different land uses in the local area and the relative proportion of those in the balance. The walk opportunities index is an upgrade over the TEF type factor. In this case, we narrow from Dunn & Bradstreet data the exact location of retail and service activity that is within a quarter mile of a household, and using a street grid, we can walk to each of these places and plot the opportunity based on what it is (i.e., grocery store, bakery, etc.). It works extremely well.

We then have a household VMT model and in this case we also have workers in the model. This increases with autos. VMT goes down as accessibility goes up, and walk opportunities reduces VMT because there is more development locally. The big trip that got us to a better model was to include the portion of the household VMT that is the home-based work portion. Last month, I showed data from Solimar South Bay Cities that showed that it is entirely possible for a household to have the behavior of living in a mixed-use area where there is a lot of local activity that can satisfy their non-work needs, and still hop in a car and drive 30 miles for a commute trip because they have free parking at a distant suburban work

site. You have to somehow control those two and if you try putting them both in the same model and not accounting for the difference, you don't do very well. By virtually putting this in here it acts neutral but it gives the model a good balance.

Mr. Van Haagen mentioned that in the SCAG model there is already an auto ownership model, but now you are adding an outside auto ownership model. Is there a question of consistency? Mr. Kuzmyak answered that we are not questioning the auto ownership element inside the SCAG regional model. We are allowing that to be applied to do the initial estimate using the regional model. What is going to happen is that we are going to get a VMT estimate for every TAZ for each of those four scenarios. Our sense is that the regional model is primarily going to pick up changes in long distance intra-zonal trips that are going to be substantial commuting trips because of their length. We are going to assume that because we are working at an intra-zonal level, we are going to manipulate mostly non-work travel, so having this home-based work variable as a placeholder in the VMT model will allow us to directly reflect that assumption. We are not challenging the auto ownership in the SCAG model; we need to do this incremental estimate of household VMT. It is essential to be able to calculate it in a way that is essential to land use.

David Mootchnik, So. Cal. Commuters Forum, asked some questions about those equations, and if there is a way that he can contact Mr. Kuzmyak. Mr. Kuzmyak answered yes, and to please send the email to Naresh Amatya, SCAG staff, so that we can all discuss.

Ms. Shiimoto-Lohr asked with respect to the additional model in auto ownership and recognizing that you are not changing the SCAG model assumption on auto ownership, what the difference is between what the SCAG model is identifying per household and an average versus what you are showing with this model. Mr. Kuzmyak answered that we haven't done a direct comparison. We are using the 2001 Travel Data Survey. The number that we are working with here, the mean is 2.017 for our sample. What happens when you are doing econometric equations is that you start off with a large sample size of maybe 14,000 households, and make sure that you have all of the conditions for each of the variables in the model. Then, cases begin to drop. You do some things to the means but the structure of the sample is still representative of the region; hence, you do get some fluctuation in the means but more of what you are looking at is the sensitivity of the coefficient and that is essentially elasticity that is behaving reasonably and is what we look at more than the absolute value of the number.

Ms. Chankin asked for an explanation of what the home-based work variable is. Mr. Kuzmyak answered that when we estimate this model, we look at a sample of 10,000 households and we know what the households' daily total VMT is, and we can determine based on purpose-coding what its home-based VMT is. So when we run the model, we have each of these values in the equation as we pass it over the sample of households. Every time it looks at a household and its VMT, you can also see how many miles were generated each day for work or work-based travel. Ms. Chankin asked if this is a commute factor. Mr. Kuzmyak answered yes. Ms. Chankin asked if for municipal purposes, home-based work means someone who works at home. Mr. Kuzmyak answered no, in the travel demand model, it means that the trip is based from the home and goes to a work site and returns.

Glen Bolen, SCAG Consultant (Fregonese), explained different development types. Downtown would reflect something similar to downtown Los Angeles with that kind of height and intensity. There are two categories of downtown. There is a downtown center that is a very employment-heavy mix of use and then there is the downtown residential. Because we are talking about only a five-acre size for this land use designation, the same place that you are putting in housing and retail downtown, you don't put base employment. The reason that Mr. Kuzmyak broke those apart is that the non-basic employment is the type that tends to capture a lot of interest on all trips.

Jack Humphrey, Gateway Cities COG, asked these days with home-based employment, if there is ever a zero in any of these categories because you do have people increasingly working from home. Ms. Shiimoto-Lohr concurred with Jack in going through databases with the center for demographics research. In one hundred percent residential subdivisions, you can easily have 300-400 people from the actual database sets that are based on employment from within the home. We have had plenty of discussion with CDR on this issue and so in Orange County you have many employees within 100% residential zones. Mr. Bolen stated that he assumes that the SCAG model that is focused on the commute is probably taking into account those statistics. You can change the percent of employment by a percentage or two but I don't think that you are going to see much change in the intra-zonal capture because it is not getting at those non-work trips.

Mr. Van Haagen asked how you compute the land use mix variable. Is it a judgment or a variable? Mr. Bolen responded that we basically have a set of tiered spreadsheets where we have created one sheet that just describes buildings: everything from height to setback to parking ratios, office size per person, etc. Then, using tools like the census and Google Earth, we've determined what streets have what mix of buildings, and then as planners we code in the percentage. We've calibrated the building types using local building examples as much as possible and have calibrated the mix based

on proportions of those different buildings. Then, Mr. Kuzmyak has taken that and pulled apart an understanding of the base employment versus the non-based employment as it relates to travel capture. We are using an entropy formula that looks at the number of different uses and the relative proportion of them, and as the mix and dispersion goes up the value of the index gets closer to one.

Ms. Shiimoto-Lohr stated that with respect to quantifying the difference between Baseline and some of these growth scenarios is that in essence, what you are applying here is what she calls a traditional land use based transportation model where you already know the land use and the percentage of mixes. Perhaps some of those characteristics are already in the existing Baseline but are not evident because the information that you have is socioeconomic-based. On the other hand, some of the jurisdictions that have submitted that data have it from a land use perspective and could possibly say that some of those characteristics are already in our development right now and are they being quantified as to their vehicular travel and air emissions benefits because they already have those characteristics? My question is how much of this is already in the existing Baseline but has not been quantified yet? Mr. Kuzmyak answered not much, because these characteristics are intra-zonal and at the level that the regional model is applied it does not see this. It would only see the average socio-demographic values. It does not have anything to do with the mix, and the model is insensitive to those differences. Ms. Shiimoto-Lohr stated that she looks forward to the technical information and would say that someone could take their existing land use model and take a look at those assumptions and see whether or not, most importantly, some the future air emission and vehicular emissions benefits that you are trying to secure are already happening in the existing Baseline because some of those patterns already exist. So then, what you are dealing with is the difference that you can capture as new benefits to the system.

Mr. Kuzmyak continued with his presentation by saying that we are going to calculate VMT at a TAZ level and that is going to be a function of four things: demographics, auto ownership, transit accessibility, and local land use. We are going within a zonal cross classification so that if you assume an average household size or an average level of income you are greatly distorting the distribution or key variables there. In fact, our bigger elasticities in our model are on those demographic characteristics. We need to make sure that we get that right. In each zone we are going to be applying the model to each cell with all of the variables that are applicable for that zone. We are using the zone to zone transit accessibility. For our first round, we will attempt to use regional transit accessibility as our measure.

As our next steps, we want to take this information, work it in to a real test, demonstrate it to SCAG staff for approval and buy-in. We will then run a test application on LA County and will try to run it on the 2035 Baseline and the Blueprint Envision. We will look at this and then analyze our approach. We are expecting to have a meeting on August 27 and then apply it to all counties and each scenario.

Mr. Wen, SCAG staff, briefed the TAC on the project timeline. Mr. Wen reported that on August 27, Mr. Kuzmyak will report back to the committee and will have more concrete modifications and growth scenario developments under the TOD centers and vision scenarios. On August 30, the CEHD will report back to the CHD on two items: 1. down the line, how the growth forecast demographic changes and shift could affect the redistribution of housing; and 2. requesting that CEHD look at the approach that we have taken so far and include additional growth in the stations and request their direction to move forward to develop the alternatives for the 2008 RTP. We will also have other RTP-related workshops for the policy committees on August 30. On September 20, we will have a P&P TAC meeting. In addition to that, we are also attempting to schedule meetings with the subregions to discuss in greater detail the methodologies that are being used.

Mr. Hatata added the following: Just to make sure that everyone is clear, what this presentation calls the 2008 RTP growth vision 2% is what Mr. Kuzmyak called the Blueprint test, and the more aggressive GV 2% land use is what Mr. Kuzmyak referred to as the Blueprint vision. Also, what you refer to as Baseline is what Mr. Kuzmyak refers to as the General Plan.

Mr. Wen began his presentation by saying that from the growth forecast land use strategies from the regional perspective, we would like to identify the 2% regional opportunity areas. We will focus on areas along the stations and the centers and their interactions such that we emphasize the design development type and the policies. Once we select these areas, we will track and monitor the progress and then see the regulation and zoning changes along those areas. This will be much easier than the version of the growth distribution that was adopted in the 2004 RTP.

We will also discuss the negative traffic impact from the high intensity development around TOD centers. We will address this issue along the development of the project. One of the lessons that we learned is that we may need to look at the complete community design.

Glen Bolen, SCAG Consultant, continued with the presentation by saying that one of the first things that Lingqian Hu, SCAG staff, developed is a GIS layer for us that broke in all of the transit stations into three categories; Metro Rail, Metrolink, and rapid bus. At the same time, she identified employment centers that are areas that are creating a large draw.

Bringing these together then becomes our target, and we will try to focus and create more capacity along these areas through the vision scenario.

Mr. Schuiling stated that the light rail line that is projected to be built from San Bernardino eastward to Redlands is missing from this line. This has Gold Line Phase 2 but does not have the Redlands light rail, which is equally real.

Also, the Yorba Linda Metrolink station is now in Placentia so it needs to be corrected on the map.

Mr. Mootchnik commented on the last slide regarding overcoming recent challenges and negative traffic impacts from high density development around TOD's and centers. What are those challenges and how are you going to overcome them? Mr. Wen answered with a brief summary of a report in the LA Times regarding the impacts of TOD development around transit.

Mr. Bolen discussed the workshop scenario. The scenario was built in January off of the workshops that were held through late 2006. The Baseline is a continuation of our growth trends and the RTP is doing the same, except that that was focusing on centers and corridors as you got into the Compass program that was done in 2003 and 2004. The Envision scenario is the more aggressive EIR scenario and is the most aggressive scenario. It focuses on the employment centers, bringing in housing, TOD's, and building complete communities around places like the Metrolink stations and then trying to correct the jobs/housing balance scenarios. The Envision scenario is really a "what if" test. The third scenario would result in a shift towards less single family housing and more mixed housing. You would have low or no growth in the stable single family areas but less dense development in the outlying areas.

Ms. Chankin asked from a policy perspective, if the Envision includes all of the other land use changes. Mr. Bolen replied that it does to some extent. There is a melding so if you bring together the major components of the TOD scenario and the Center scenario, that is the basis for the Envision. Those have created a lot more capacity so then there is another exercise of going around and trimming down the need to allocate growth into those 50-mile commute areas.

Ms. Diep asked if the Envision change would be taking the growth that is projected for the next 30 years, and taking the growth from any area that is not near a transit or employment center and placing most of the growth in areas around transit centers or employment centers, which would mean densifying new things that are put in there and taking down what is already there or replacing anything that is in those centers. Mr. Bolen answered that your base premise is right on. However, there is no categorical answer. According to the model, if the land is developed then

we are assuming that only a small amount of infill or redevelopment takes place. It varies by the typology that is placed there so if a city neighborhood was coded into an area that was developed, then the net result would be a house or duplex on a block or two being added; you wouldn't wipe out neighborhoods to replace them with something denser. Ms. Diep replied that that would be helpful to know. Again, having some sort of example being made because you are talking about a lot of growth that is being projected to be placed in specific areas.

Mr. Mootchnik stated that the previous presentation showed the change in VMT from the 17 different locality types, and the maximum difference from the worst to the best was 20%. Here you have shown 31 million, which is 6% of the total, and the amount of modification or rebuilding that you are projecting seems to be incredibly high in order to get a 6% effect. It looks as if you are rebuilding the entire region to get to the 6% improvement. Mr. Bolen answered that the idea behind these scenarios is what if these trends carry on and part of that is testing for the EIR and not the RTP. It is also important to know that these are just land use changes. It doesn't account for modifying the transportation network to support the different land use changes; it is just taking the consistent network and changing some capacity to see how it might effect things and is prior to Mr. Kuzmyak's work in which he then goes in and figures out what the post-processor work might be. This is a "what if," or test, to help us learn what kinds of things need to go into the preferred alternative for the RTP.

Mr. Van Haagen asked if this model is much more sensitive than the previous model. Mr. Hatata answered that it is fair to say that it is more sensitive because we have a smaller zone in this plan.

Jim Stewart, SCCED, stated that this is fabulous work and that he would like to complement everyone that is working on this. You are proposing that we are able to take air quality improvement from this VMT reduction; therefore you are proposing that the 2008 Plan would take the air quality improvement from the 32 million miles saved here, plus another 5 or 10 million daily miles from the 4D modeling. If this is correct, then what substantiation do we have that the 600,000 plus households are going to live where we want them to live? Mr. Wen answered that this is a voluntary policy. From the regional perspective, we will identify the locations which are reasonable or logical, and then demonstrate those households in the modeling that have a regional benefit. We would like people to embrace the idea and then begin implementation to see how persuasive this is, such that the local jurisdictions will follow suit and change the zoning along those 2% areas. Mr. Bolen added that another important item to add is that SCAG has a program over the last four years of funding local planning activities. The land use types that we put into these new scenarios were the results of that kind of work. We are seeing that LA City is now looking to get an inventory for 60 stations so that they can learn how to take better advantage of infill.

Mr. Schuiling stated that at the last meeting there was discussion about whether outcomes like Envision require strong policy intervention to force it to occur or whether it is almost more a matter of local policy getting in the way because market forces including energy prices and things of that sort may tend to be driving us in that direction. I think that is a discussion that needs to be revisited at some point in time.

Mr. Bolen continued that it is important to remember that these are test scenarios in order to give the policymakers some options and have them tell us what they want to see as the RTP moves forward.

4.2 2003 Base Year & 2035 Baseline Modeling Result Comparison

Tarek Hatata, System Metrics, summarized the performance measures for 2003 Base Year, 2035 Baseline, and 2035 Plan. The three big measures that are looked at are speed, delay, and delay per capita. If you look at the speeds in each case you will see that the speeds deteriorate between 2003 and 2035 Baseline, which would be expected given an increase in 30% more population.

The next item is average daily person-hours of delay and here in the presentation that was given a few months ago where we had the preliminary Baseline, which has changes since we gave you the wrong number before. We gave you vehicle-hours of delay instead of personal-hours of delay. Since then, the Baseline has also changed. If you look at the tier, the base year for the SCAG total has close to 6 million hours of delay per day. It goes up to 10.5 with Baseline and is reduced to 9.3 with the Plan. The Plan reduces 1.2 million hours of delay per day but we are still significantly higher than we are in 2003.

The growth scenario, our Plan, and some of our self-financed projects ended up getting us delay per capita constant between 2003 and 2030. Now, we don't get there; even though Plan does reduce it, we are not equal to 2003. This is before there is any growth scenario or any public-private partnerships. The Baseline has about 555 million VMT; with the plan it jumps up to 572 million. In terms of percentage, there is 21% deterioration per capita delay. Interestingly, Riverside and San Bernardino end up suffering the most.

Maps were presented showing Base Year AM peak period. In the 2003 Base Year, in the AM, we have quite a bit of speeds below 35 mph on the freeways. You go to 2035 Baseline and it really increases, especially in the outer cities.

Clarification was asked about whether areas where there are no detectors show as performing well. Mr. Hatata answered that this is not observed data; it is all modeled. A suggestion was made to look at what is going on at the ports. Mr. Hatata asked for an e-mail that we will use to communicate with the modeling staff.

Mr. Hatata continued with Accessibility. We will only be presenting the auto accessibility for today. Accessibility does not deteriorate very much. In 2003, it was 77% region-wide and dropped to 76% with Baseline, and goes back to 77%. Mr. Schuiling noted that in the Baseline, Riverside and Ventura have the best accessibility. Mr. Hatata said that this is the cumulative distribution, so it doesn't tell you as much but this tells you what is going on by county, so after much analysis my best guess is that the edge is the one that will get the most impact. If you look at 2003 it does go down a bit but what you see is that the tail increases greatly. When the tail increases and 6% of trips are over 90 minutes, that shows you that a lot of people, especially in Riverside and San Bernardino, have a huge commute, but 77% of them can still do it within 45 minutes. The plan does reduce the tail a bit but not as much as it was in the base year. We will review this some more but I cannot guarantee that we are going to find a reason for it outside of the observation that the tail goes up and the rest pretty much stays the same.

It was noted that in one of the previous presentations it shows that under the Baseline scenario the delay increases by 211%, yet somehow that does not seem to be reflected in the graphs shown. Mr. Hatata answered that everything has changed since the last presentation. The reason it showed 200% is because consultants made a mistake of not translating the Base Year vehicle delay into person-delay so we under reported by 40%, and in addition to this the models have changed. It was stressed that this does not show the increase in home-to-work trips. I think that one of the very important things to show in the plan is how the trips that have to be made, which are home-to-work trips, are going to be affected by what happens. Mr. Hatata answered that the only thing I would warn against is saying that accessibility is good since 77% finishing their home-based work trip in 45 minutes is not very good. This means that 23% have a 45-minute plus commute and some of which can be going over 90 minutes. It was emphasized that for most people it is understanding that when we are doing relative comparison, it does not mean what are we going to see 20 years from now compared to what we see today.

4.3 Framework Discussion on the Development of the RTP

Mr. Hatata moved on by saying that what we want to show the TCC is that the news is bleak for the region. We have all kinds of self-financed projects and we have new challenges. However, the SAFTEA-LU requirements are much more stringent and we have been told that they are going to be much tougher on fiscal constraints. In addition to this, we also have very taxing air quality conformity goals. We still do not know what our budget is since we will not have it until October.

Not only do we have funding issues and unmet needs, the performance is not very good. We have a proposed RTP development framework that we will run by the TCC and I would like to run it by you today.

We pretty much have \$240 billion in revenues in 2007 dollars over the horizon of the plan. These revenues are committed once you take in committed projects, which are Baseline and Tier 2, which mentioned earlier are the ones that have received environmental approvals. Then, we also have planned projects beyond Tier 2. The only caveat is that some of the commissions have put some money for their projects in their

plans, but they have not fully funded them. In those cases, we assume full funding because we have five more years than the commissions do. Most of the commissions have their plans until 2030, so we have five extra years of revenues.

Our unmet needs were \$29.7 billion and two years later they are \$55 billion. Part of this reason is raw materials, cost of construction, but part of this is also that when a problem is not addressed, it deteriorates faster and requires much more dollars. By the way, this is an adopted plan that the TCC has approved. They are short \$3 billion per year statewide. This means that we are falling behind by \$1.5 billion dollars every year just in state highway operations and preservation. Counties have also provided data: Orange County has given us a 2005 report that says that depending on the goal that they have, they are already somewhere between \$300-700 million dollars short. LA County, based on 2002 report at that time, already had a \$2 billion shortage. When this is added you are \$30 to 40 billion dollars short just on preservation and operations.

As for other unfunded needs, last time we talked about goods movement and the highway capacity corridor, meaning truck lanes, rail expansion, grade separation, and emissions reductions of which we held a workshop on August 2. The Inland and/or agile port, the 710 tunnel in Pasadena, high speed rail/maglev from LAX to Ontario, and earlier on, we talked about transit investments to support growth strategies. Even though we do not have final dollar values, we know that when we add these up they are in the tens of billions of dollars. For instance, the old study on truck lanes was for \$26 billion and the IOS HSR Maglev is \$7-8 billion. All of these are in the billions; these are a lot of unmet needs. We will not be able to assume that all of these will be self-financed so they have told us that assumptions for self-financing must be backed up with detailed funding plans to demonstrate fiscal constraint. None of the analysis that has been conducted to date suggests that any of those can be done completely through private financing.

What are we proposing? We want to have a core RTP that the federal government will accept. We are going to include all of the projects that are fully funded and we are going to include the preferred growth strategy that is going to be adopted, and only low-cost transit enhancement that is going to be adopted as well as only low-cost transit enhancement that is post-approved growth strategy.

If we can meet conformity with this fully-fiscally-constraint list, we will refer to it as the core RTP. We also want to include another section called the expanded RTP and that will have all of the core RTP projects as well as the new funding sources to fund either all or some of the special needs that we mentioned.

The following funding sources are being looked at:

- State gasoline tax (or equivalent) increase
- TEU Fee – can help finance freight and goods movement projects. Specifically for freight and goods movement related projects.
- Countywide mitigation fee programs
- Tolls – can help finance corridor specific projects
- Private sector (PPP) – can help finance mutually beneficial projects (e.g., rail strategies)

Mr. Schuiling noted that we need to be careful with how we characterize the development impact fee. In San Bernardino it is urban area-wide, not countywide.

5.0 STAFF REPORT

A goods movement workshop occurred on August 2. We have four workshops scheduled for the RTP beginning August 30 at the SCAG office with a focus on Finance, September 20 in Long Beach with a focus on Goods Movement, October 4 in Los Angeles with a focus on Core Infrastructure, October 18 in Ontario on High Speed and Aviation, and a final workshop on October 25 as a wrap-up in Anaheim. Participation is encouraged.

Hasan Ikhata, SCAG staff, also provided a brief report on the board meeting that took place on August 2. Mr. Ikhata mentioned that the three components (grade crossings, electrification of the railroads, and the capacity addition) were presented. Additional meetings are required in order to reach an agreement on how to move forward.

6.0 ADJOURNMENT

Mr. Schuiling adjourned the meeting at 1:00 pm. The next meeting of the Plans & Programs Technical Advisory Committee will be held at SCAG's Los Angeles office on August 27, 2007.